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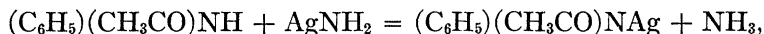
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by the interaction of benzylacetamide and potassium amide; and potassium phenetol ammonoacetate, $\text{CH}_3\text{CONKC}_6\text{H}_4\text{OC}_2\text{H}_5$, by the interaction of phenetolacetamide and potassium amide.

The nature of these reactions will be clear from the equation,



which represents the action of acetanilide on silver amide, or in other words, the action of an acid ammono ester on an ammono base.

¹ Franklin, *Amer. Chem. J.*, **47**, 285 (1912).

² Franklin, *J. Amer. Chem. Soc.*, **27**, 820 (1905).

AMMONOBASIC IODIDES OF ALUMINIUM

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Presented to the Academy, January 9, 1915

While investigating the action of potassium amide on salts of aluminium in liquid-ammonia solution it was noted that a considerable amount of potassium amide could be added to aluminium iodide solutions without the formation of a permanent precipitate. Under analogous conditions in aqueous solutions aquobasic salts are formed.

The attempt was therefore made to isolate an ammonobasic aluminium iodide from a liquid-ammonia solution of aluminium iodide to which potassium amide had been added in an amount not quite sufficient to produce a permanent precipitate. When a solution so prepared is carefully concentrated a crop of well formed crystals of a compound is obtained which, after several recrystallizations, gave analytical results sharply in accord with the formula, $\text{AlI}_3 \cdot \text{Al}(\text{NH}_2)_3 \cdot 6\text{NH}_3$. The equation expressing its formation is $2\text{AlI}_3 + 3\text{KNH}_2 = \text{AlI}_3 \cdot \text{Al}(\text{NH}_2)_3 + 3\text{KI}$.

The compound is obviously related to ammonia as the ordinary basic salts are related to water. It is therefore an ammonobasic salt.

When sufficient potassium amide is added to a liquid-ammonia solution of aluminium iodide to produce a permanent precipitate a second ammonobasic salt is formed the composition of which is represented by the formula $\text{Al}(\text{NH}_2)_3 \cdot \text{Al}(\text{NH}_2)_2\text{I} \cdot \text{NH}_3$.